

State of Alaska
Department of Fish and Game
Nomination for Waters
Important to Anadromous Fish

AWC Volume SE SC SW W AR IN USGS Quad Beechy Point B-5

Anadromous Water Catalog Number of Waterway Not listed 330-00-10620

Name of Waterway Ugnuravik River USGS name X Local name _____

Addition X Deletion _____ Correction _____ Backup Information _____

For Office Use

Nomination # <u>95 054</u>	<u>[Signature]</u>	<u>10-5-94</u>
Revision Year: <u>'95</u>	Regional Supervisor	Date
Revision to: Atlas _____ Catalog _____	<u>Ed Wein</u>	<u>11/23/94</u>
Both <u>X</u>	<u>2 drone</u>	<u>12/5/94</u>
Revision Code: <u>A-2</u>	Drafted	Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Migration	Anadromous
Broad whitefish	8-31-94 captured		X		X
Broad whitefish	9-1-94		X		X
Least cisco	9-1-94		X		X
Broad whitefish	9-2-94 ↓		X		X

IMPORTANT: Provide all supporting documentation that this water body is important for the spawning, rearing or migration of anadromous fish, including: number of fish and life stages observed; sampling methods, sampling duration and area sampled; copies of field notes; etc. Attach a copy of a map showing location of mouth and observed upper extent of each species, as well as any other information such as: specific stream reaches observed as spawning or rearing habitat; locations, types, and heights of any barriers; etc.

Comments: Fyke nets were fished in Kuparuk River Site D from August 30 to Sept. 2, 1994. On August 31 a single young-of-the-year (60 mm) broad whitefish was captured. On September 1, we captured a single young-of-the-year broad whitefish (65 mm) and two young-of-the-year least cisco (60 and 62 mm). On September 2 we captured an adult (442 mm) broad whitefish. Trip report w/ narrative is attached.

Name of Observer (please print) Carl Hemming
Date: 10-4-94 Signature: [Signature]
Address: ADFGL Habitat and Restoration Division
1300 College Rd, Fairbanks, AK 99701

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FISH & GAME

NOV 02 1994

REGION II
HABITAT AND RESTORATION
DIVISION

This certifies that in my best professional judgement and belief the above information is evidence that this waterbody should be included in or deleted from the Catalog of Waters Important for Spawning, Rearing or Migration of Anadromous Fishes per AS 16.05.870.

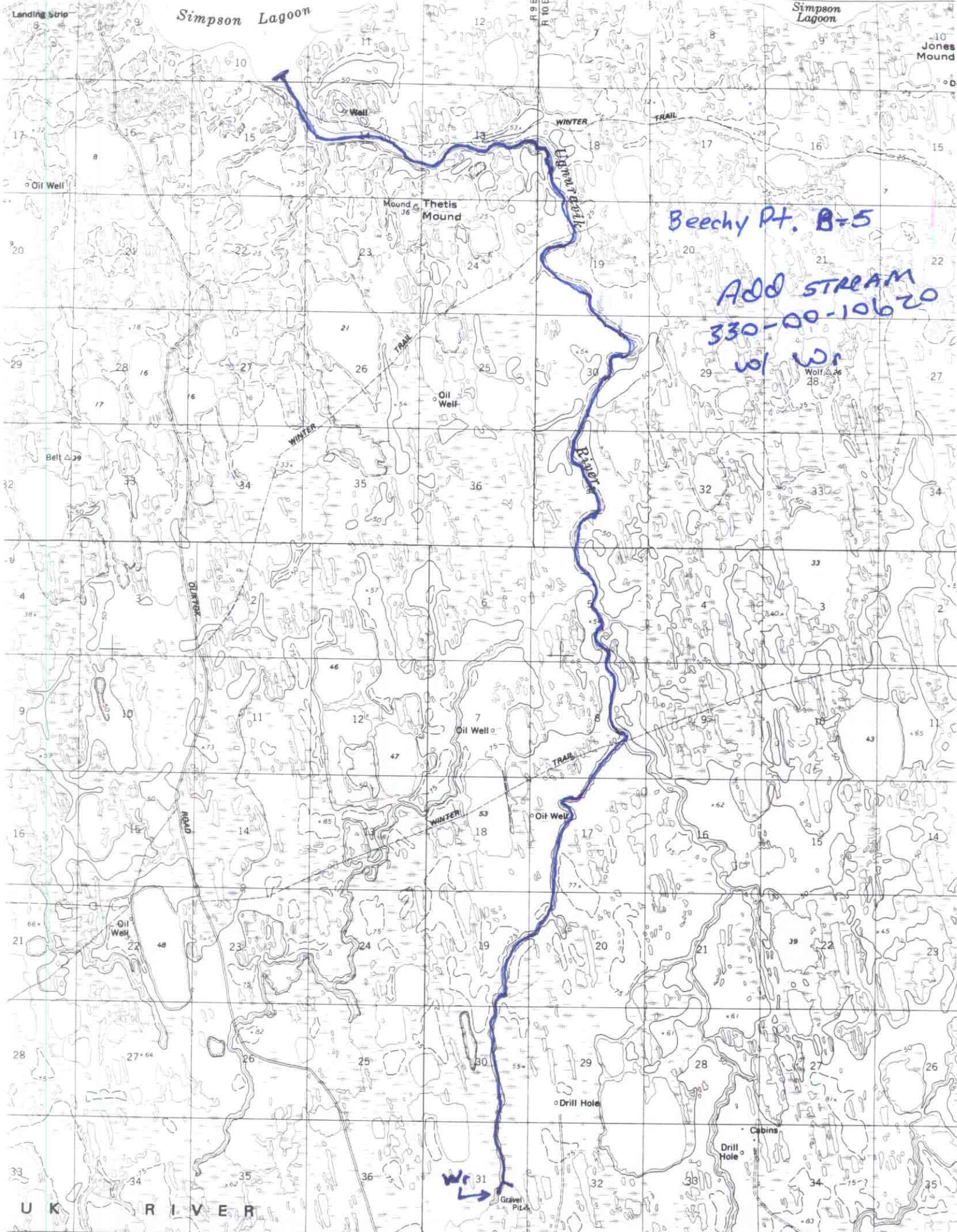
Signature of Area Biologist: [Signature] for F. Anderson

Rev. 7/

Simpson Lagoon

Simpson Lagoon

Jones Mound



Beechy Pt. B-5

ADD STREAM
330-00-10620
w/ w/

UK RIVER

NORTH SLOPE GRAVEL MINE PROJECT TRIP REPORT

AUGUST 27 TO SEPTEMBER 2, 1994

General Comments

Fisheries investigations were conducted in the Kuparuk and Prudhoe Bay Units of the North Slope Oilfields from August 27 to September 2, 1994. This report describes the third and final trip of the 1994 field season. Our primary objectives included: collection of data that can be used to evaluate the experimental introduction of Arctic grayling (*Thymallus arcticus*) at Kuparuk Mine Sites B and D, evaluation of fish use of the Put 27 Mine Site and collection of water quality data at Put 27.

Weather conditions resulted in modifications of our field sampling plan. On arrival at Deadhorse (August 27), we found five inches of fresh snow on the ground and rising water levels in local drainages. On August 28 the Kuparuk River crossing washed out and road access between the Prudhoe Bay and Kuparuk oilfields was lost until September 1. Without road access sample sites were worked sequentially and sample periods were shortened.

We fished a fyke-net in the Put 27 Mine Site for two net nights (28-30 August) and water quality samples were collected on September 1. Fish sampling was conducted in the Badami development area concurrently with work at Put 27. Nets were fished in Kuparuk Mine Sites B and D from August 30 to September 2. We fished three nets in the Kuparuk Mine Site B system and two nets in Kuparuk Mine Site D. Two additional nets were added at Mine Site D on September 1.

BPX provided field logistical support consisting of air transportation from Fairbanks and room and board at BOC between August 27 and 30. Room and board was provided by ARCO Alaska Inc. at KOC between August 30 and September 2. Field assistance was provided by Roy Perry who was temporarily assigned to the Habitat and Restoration Division from the Sport Fish Division. We used the Habitat and Restoration Division truck to access sample sites in the oilfield area.

class (48-67 mm). We captured 40 larger (>80 mm) grayling that were used in a mark recapture population estimate. We captured 17 grayling that were marked in June and early August.

Preliminary results indicate that abundance of larger grayling in Mine Site D has decreased from that found in 1993. The relative abundance of young-of-the-year grayling found in the sample catch at Mine Site D increased from that found in 1993 indicating reproductive success among grayling spawning in 1994.

Physical changes in Mine Site D include the development of a shoal area along the south and west sides of the site. Measurements indicate the shoal area is roughly 10 m wide and extends to a depth of 1.0 m before the transition to steeper side slopes and deeper water. During the course of the summer we observed grayling moving along the drop-off transition zone. We speculate that the shoal has developed from consistent wind driven wave and ice action which erodes the banks.

Put 27 Mine Site

We captured five species of fish and all were marine or anadromous life history types. Species captured included: Arctic flounder (*Liopsetta glacialis*), broad whitefish (*Coregonus nasus*), Dolly varden (*Salvelinus malma*), fourhorn sculpin (*Myoxocephalus quadricornis*), and ninespine stickleback (*Pungitius pungitius*). Ninespine stickleback were most abundant (Table 3).

Fourhorn sculpin followed stickleback in abundance. On August 30 we captured 8 juvenile broad whitefish. The Arctic flounder and Dolly varden catch each consisted of a single fish.

On September 1, we collected water samples at 2 m intervals through the water column. We found low salinity concentrations near the surface (2.9 ppt at 2 m) increasing to 11 ppt at 4 m and remaining at 11 ppt through the remainder of the water column to 12 m. Similar measurements taken periodically since the site was flooded in 1990 indicate a pattern of increasing salinity concentrations over time. The fish species assemblage (marine and anadromous fish) found in Put 27 is consistent with the water quality characteristics measured.

Table 1. Arctic grayling captured in Kuparuk Mine Site B, August - September, 1994.

Date	Location	Length (mm)	Recapture	Tag #	Comment
9/2/94	Mine Site B	59			young-of-the-year
		97			
		116			
		215	X		
		292	X	OR-01809	
		292			
		304			
		338	X	OR-01799	hook injury
		398	X	OR-01943	
	Inlet	51			young-of-the-year
		51			young-of-the-year
		53			young-of-the-year
		95			
		97			
		98			
		100			
		100			
		101			
		102			
		105			
		110			
		150	X		
		153	X		
		158	X		
		165	X		
		174			hook injury
		175			
		179			
		200	X		
		254			hook injury
	East Creek	45			young-of-the-year
		94			
		129			
		197	X		
		217			
		328		OR-01946	
		340	X	OR-01873	hook injury
		384			
		419	X	OR-01810	

Table 1. Arctic grayling captured in Kuparuk Mine Site B, August - September, 1994.

Date	Location	Length (mm)	Recapture	Tag #	Comment
8/31/94	Inlet	227			
		229	X	OR-01790	
		231	X	OR-01836	
		237	X	OR-01871	
		258			
		280			
		293			
	East Creek	370		Y-002230	
		48			young-of-the-year
		105			
		107			
		119	X		
		181	X		
9/1/94	Mine Site B	267	X	OR-01862	
		52			young-of-the-year
		53			young-of-the-year
		53			young-of-the-year
		57			young-of-the-year
		58			young-of-the-year
		58			young-of-the-year
		58			young-of-the-year
		86			
		91			
		94			
		96			
		98			
		104			
		104			
		104			
		107			
		108			
		109			
		118			
		127			
		150	X		
		156			
		156	X		
		157			
		172			
		178			
		209			
		225			

Table 2. Arctic grayling captured in Kuparuk Mine Site D, August - September, 1994.

Date	Location	Length (mm)	Recapture	Tag #	Comment
9/1/94	Access ramp	58			young-of-the-year
		58			young-of-the-year
		58			young-of-the-year
		59			young-of-the-year
		59			young-of-the-year
		59			young-of-the-year
		59			young-of-the-year
		59			young-of-the-year
		59			young-of-the-year
		59			young-of-the-year
		59			young-of-the-year
		59			young-of-the-year
		60			young-of-the-year
		60			young-of-the-year
		60			young-of-the-year
		60			young-of-the-year
		60			young-of-the-year
		61			young-of-the-year
		61			young-of-the-year
		63			young-of-the-year
		65			young-of-the-year
		66			young-of-the-year
		67			young-of-the-year
		190			young-of-the-year
		192	X		young-of-the-year
		205	X		young-of-the-year
		207	X	OR-01826	young-of-the-year
		250	X	OR-01895	young-of-the-year
9/2/94	Access ramp (small trap)	53			young-of-the-year
		55			young-of-the-year
		55			young-of-the-year
		56			young-of-the-year
		57			young-of-the-year
		57			young-of-the-year
		58			young-of-the-year
		59			young-of-the-year
		60			young-of-the-year
	Access ramp (large trap)	47			young-of-the-year
		50			young-of-the-year
		51			young-of-the-year
		53			young-of-the-year
		54			young-of-the-year
		55			young-of-the-year

Date	Location	Length (mm)	Recapture	Tag #	Comment
8/31/94	Access ramp	56			young-of-the-year
		57			young-of-the-year
		57			young-of-the-year
		57			young-of-the-year
		57			young-of-the-year
		57			young-of-the-year
		57			young-of-the-year
		57			young-of-the-year
		57			young-of-the-year
		58			young-of-the-year
		58			young-of-the-year
		58			young-of-the-year
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		58			young-of-the-year
		59			young-of-the-year
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		60			young-of-the-year
		60			young-of-the-year
		61			young-of-the-year
		61			young-of-the-year
		61			young-of-the-year
		62			young-of-the-year
		62			young-of-the-year
		64			young-of-the-year
		65			young-of-the-year
		66			young-of-the-year
		124			
		125			

Table 3. Fish captured in Put 27, August 1994.

Date	Water Temperature ° C	Species	Number	Length (mm)	Comments
8/29/93	4.5	Arctic flounder	1	27	
		Dolly varden	1	241	
		Fourhorn sculpin	5	59	
				66	
				67	
				81	
				118	
		Ninespine stickleback	51		
8/30/94	3.5	Broad whitefish	8	62	sample saved
				70	
				80	
				82	
				83	
				89	
				99	
				124	
		Fourhorn sculpin	13	47	
				51	
				52	
				56	
				60	
				61	
				68	
				70	
				76	
				95	
				107	
				110	
				110	
		Ninespine stickleback	66		